UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,061	07/29/2003	Arthur Dimitrelis	CML01102AC	5893

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EXAMINER
BAYARD, DJENANE M

ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*29 July 2003*</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

     1.☐ Certified copies of the priority documents have been received.

     2.☐ Certified copies of the priority documents have been received in Application No. _____.

     3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *7/29/03*.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1-14, 16-18, 20-21 are rejected under 35 U.S.C. 102(b) as being anticipated by

RFC 2462, Stateless Address Autoconfiguration by Thomson et al.

a.   As per claims 1, 11 and 17, Thomson et al teaches a method for automatic and dynamic

configuration of an address allocation mechanism in a computer network, the computer network

comprising one or more sub-networks and at least one router, each sub-network comprising one

or more devices, the address allocation mechanism allocating network addresses to the devices,

the method comprising: obtaining routing protocol messages, the routing protocol messages

being exchanged in the computer network for routing purposes(See page 8, When routers are

present they will send router advertisement that specify what sort of autoconfiguraion a host

should do),; obtaining one or more network prefix addresses that correspond to the sub-networks,

the network prefix addresses being obtained using the routing protocol messages (See page 7,

Host must determine the prefixes that identify the subnets to which they attach. Routers generate

periodic router advertisement that include options listing the set of active prefixes on a link); and

determining a range of valid network addresses for the devices using the network prefix

addresses (See page 18, If an address is formed successfully, the host adds it to the list of

addresses assigned to the interface, initializing its preferred and valid lifetime values from the

prefix information option).   ·

b.   As per claims 2 and 12, Thomson et al teaches the claimed invention as described above.

Furthermore, Thomson et al teaches wherein the method further comprises automatically

allocating the valid network addresses to the devices requesting allocation of the valid network

addresses (See page 8, Once a node ascertains that its tentative link-local address is unique, it

assigns it to the interface).

c.   As per claims 3, 13 and 18, Thomson et al teaches the claimed invention as described

above. Furthermore, Thomson et al teaches wherein the method further comprises continuously

performing monitoring of the routing protocol messages, the monitoring being performed to

check if there is a change in addressing configuration of the computer network (See page 9,

Because router generate router advertisement periodically, host will continually receive new

advertisement. Host process the information contained in each advertisement, adding to and

refreshing information received in previous advertisements).

d.   As per claims 4 and 14, Thomson et al teaches the claimed invention as described above.

Furthermore, Thomson et al teaches wherein the method further comprises updating the address

allocation mechanism with the changed addressing configuration (See page 9, Because router generate router advertisement periodically, host will continually receive new advertisement. Host process the information contained in each advertisement, adding to and refreshing information received in previous advertisements).

e.   As per claim 5, Thomson et al teaches the claimed invention as described above. Furthermore, Thomson et al teaches wherein obtaining the routing protocol messages comprises listening to the routing protocol messages at one or more sub-networks to which the address allocation mechanism is connected (See page 8).

f.   As per claim 6, Thomson et al teaches the claimed invention as described above. Furthermore, Thomson et al teaches wherein obtaining one or more network prefix addresses comprises determining network prefix addresses of one or more sub-networks to which the address allocation mechanism is connected (See page 7, Host must determine the prefixes that identify the subnets to which they attach. Routers generate periodic router advertisement that include options listing the set of active prefixes on a link).

g.   As per claim 7, Thomson et al teaches the claimed invention as described above. Furthermore, Thomson et al teaches wherein determining the range of valid network addresses comprises identifying valid network addresses from a set of available network addresses at the address allocation mechanism, the valid network addresses having the same network prefix address as the obtained network prefix address corresponding to one of the devices (See page 18,

If an address is formed successfully, the host adds it to the list of addresses assigned to the

interface, initializing its preferred and valid lifetime values from the prefix information option).

h.   As per claims 8 and 16, Thomson et al teaches the claimed invention as described above.

Furthermore, Thomson et al teaches wherein determining range of valid network addresses for

the devices comprises: a. choosing a random number of a suitable length, the suitable length

being determined using length of the network prefix address (See pages 17 and 18, Section

Router advertisement processing)); b. concatenating the random number with the network prefix

address to form a valid network address (See page 10, section protocol specification); c.

checking whether the valid network address is allocated to any other of the devices in the

network; and d. repeating the steps a-b, if the valid network address is allocated to any other of

the devices in the network (See page 13, section duplicate address detection).

i.   As per claim 9, Thomson et al teaches the claimed invention as described above.

Furthermore, Thomson et al teaches wherein checking of a valid network address is performed

using an Address Resolution Protocol (ARP) (See page 8, Section Protocol Overview).

j.   As per claim 10, Thomson et al teaches the claimed invention as described above.

Furthermore, Thomson et al teaches wherein the method automatically and dynamically

configures the address allocation mechanisms for the at least one router (See page 8, Section

Protocol Overview).

k.   As per claim 20, Thomson et al teaches the claimed invention as described above.

Furthermore, Thomson et al teaches wherein the address allocation mechanism is built into

routing protocol in the computer network (See page 8, section protocol Overview).

l.   As per claim 21, Thomson et al teaches the claimed invention as described above.

Furthermore, Thomson et al teaches wherein the address allocation mechanism is built into each

of the devices in the computer network (See page 8, Section Protocol Overview).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 15, 19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over

RFC 2462, Stateless Address Autoconfiguration by Thomson et al in view of U.S. Patent No.

6,009103 to Woundy.

a.   As per claim 15, Thomson et al teaches the claimed invention as described above.

Furthermore, Thomson et al teaches wherein determining the range of valid network addresses

comprises identifying valid network addresses from a set of available network addresses at the

address allocation mechanism, the valid network addresses having the same network prefix

address as the obtained network prefix address corresponding to one of the devices (See page 18,

If an address is formed successfully, the host adds it to the list of addresses assigned to the

interface, initializing its preferred and valid lifetime values from the prefix information option).

However, Thomson et al fails to teach identifying valid addresses from a set of available IPv4

addresses at the address allocation mechanism.

Woundy teaches a method and system for automatic allocation of resources in a network.

Furthermore, Woundy teaches identifying valid addresses from a set of available IPv4 addresses

at the address allocation mechanism (See col. 3, lines 11-58).

It would have been obvious to one with ordinary skill in the art at the time the invention

was made to incorporate identifying valid addresses from a set of available IPv4 addresses at the

address allocation mechanism as taught by Woundy in the claimed invention of Thomson et al in

order to provide a flexible IP network configuration, such as multiple IP subnets on the same

physical Ethernet, and allows graceful reconfiguration of the IP network such as splitting a

physical Ethernet into multiple LANs (See col. 1, lines 61-67).

b.   As per claim 19, Thomson et al teaches the claimed invention as described above.

However, Thomson et al fails to teach wherein the address allocation mechanism is a DHCP

server.

Woundy teaches wherein the address allocation mechanism is a DHCP server (See col. 3,

lines 11-58).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein the address allocation mechanism is a DHCP server as taught by Woundy in the claimed invention of Thomson et al in order to provide a flexible IP network configuration, such as multiple IP subnets on the same physical Ethernet, and allows graceful reconfiguration of the IP network such as splitting a physical Ethernet into multiple LANs (See col. 1, lines 61-67).

c.   As per claim 22, Thomson et al teaches the claimed invention as described above. However, Thomson et al fails to teach wherein the address allocation mechanism allocates IPv4 addresses to routers.

Woundy teaches wherein the address allocation mechanism allocates IPv4 addresses to routers (See col. 3, lines 11-58)

It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate wherein the address allocation mechanism allocates IPv4 addresses to routers as taught by Woundy in the claimed invention of Thomson et al in order to provide a flexible IP network configuration, such as multiple IP subnets on the same physical Ethernet, and allows graceful reconfiguration of the IP network such as splitting a physical Ethernet into multiple LANs (See col. 1, lines 61-67).

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

        U.S. Patent Application No. 2005/0108432 to Tominaga et al teaches an

automatic address management method.

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Djenane M. Bayard whose telephone number is (571) 272-3878.

The examiner can normally be reached on Monday- Friday 5:30 AM- 3:00 PM..

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

        Information regarding.the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR·

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Djenane Bayard

Patent Examiner

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER